

DRAFT/OSI/WEWood:6251

Honorable Thomas G. Morris
House of Representatives
Washington, D. C.

Dear Mr. Morris:

Thank you very much for bringing to my attention the article from the Christian Science Monitor regarding the use of "ball lightning" as a defensive weapon.

Observations of ball lightning and theoretical explanations for it have been made since the mid 1700s. The recent interest in the subject was instigated by a hypothetical model of the phenomenon first suggested by P. L. Kapitza (Doklady Akad. Nauk SSSR, 101, No. 2, 245-248, 1955). Since then, numerous attempts have been made to explain the phenomenon, both by Soviet and Western scientists, but most of these are in the realm of theory and speculation. The first known publication of a weapons application was the publication of G. I. Babat in a popular magazine mentioned in the Monitor article.

Work in the United States has been in progress for some time investigating the possible application of ball lightning as a defensive weapon system. The basic research is being carried out by the Air Force Office of Aerospace Research under Project No. 5635, Task No. 56352. In addition to their work, several independent industrial concerns have been carrying out research in this general area. A most lucid and readable account of the Armour Research Foundation work on a device similar to that proposed by Babat can be found in the September 12, 1960 issue of Electronic News, page 1.

Unfortunately, this subject is one which appeals to the popular imagination, and consequently often appears in exaggerated forms in non-technical, popular magazines. Frequently it is difficult, even for technical personnel, to sift the fantasy from technically feasible proposals. The Central Intelligence Agency has been watching developments in this area rather carefully for some time. We do not believe that the Soviets have perfected such a weapon system, nor do we expect them to do so in the foreseeable future. Accordingly, it is not considered possible that a weapon such as this was used to down the U-2 aircraft piloted by Mr. Powers.

Sincerely yours,

John A. McCone